

# Quemetco

City of Industry

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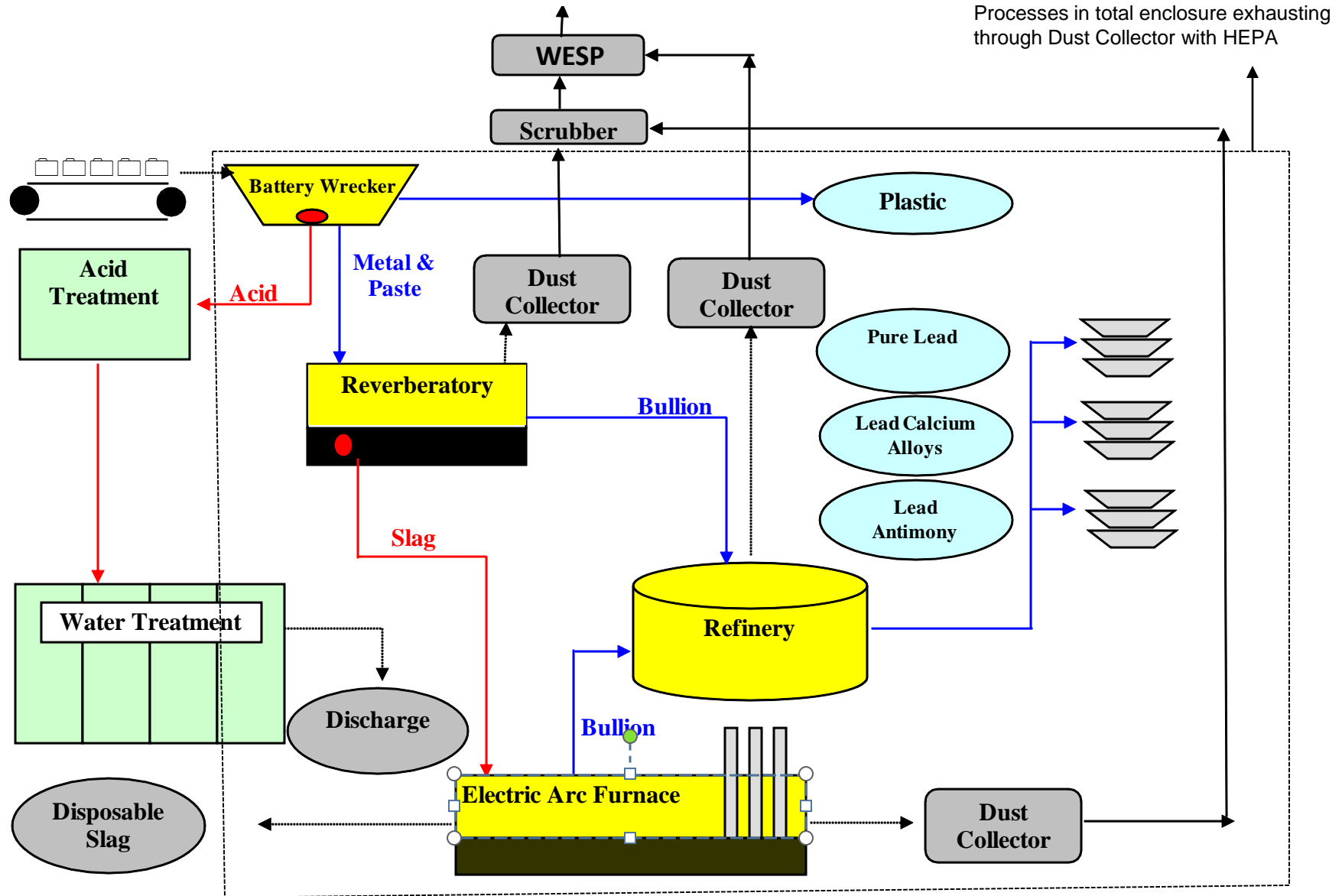
# **Agenda**

## **DTSC Lead Acid Battery Recycling/Smelting**

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- Secondary Lead Smelting Process Flow Overview
- Environmental Regulatory Operating Limits
- Pollution Control Equipment
- Worker Safety – Blood lead data

# Quemetco Battery Reclamation Process



# Regulatory Oversight

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- Ambient Air
  - Federal Lead NAAQS
  - California-specific rules (SCAQMD Rule 1420.1)
- Point Source Air Emissions
  - National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelters (Subpart X)
  - California Specific Limits (SCAQMD Rule 1420.1)
- Waste - RCRA/Cal - DTSC Hazardous Waste Facility Regulations
- SCAQMD Rule 1402 - Health Risk Assessment and Reduction
- LACSD Industrial Waste Discharge Regulations
- RWQCB Storm Water Discharge Regulations

# Regulatory Oversight

## Ambient Air level at Property Line

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- Federal Lead NAAQS
  - $0.15 \text{ } \mu\text{g}/\text{m}^3 \text{ Pb}$
- California-specific rules (SCAQMD Rule 1420.1):
  - $0.10 \text{ } \mu\text{g}/\text{m}^3 \text{ Pb}$
  - $10.0 \text{ ng}/\text{m}^3 \text{ As}$

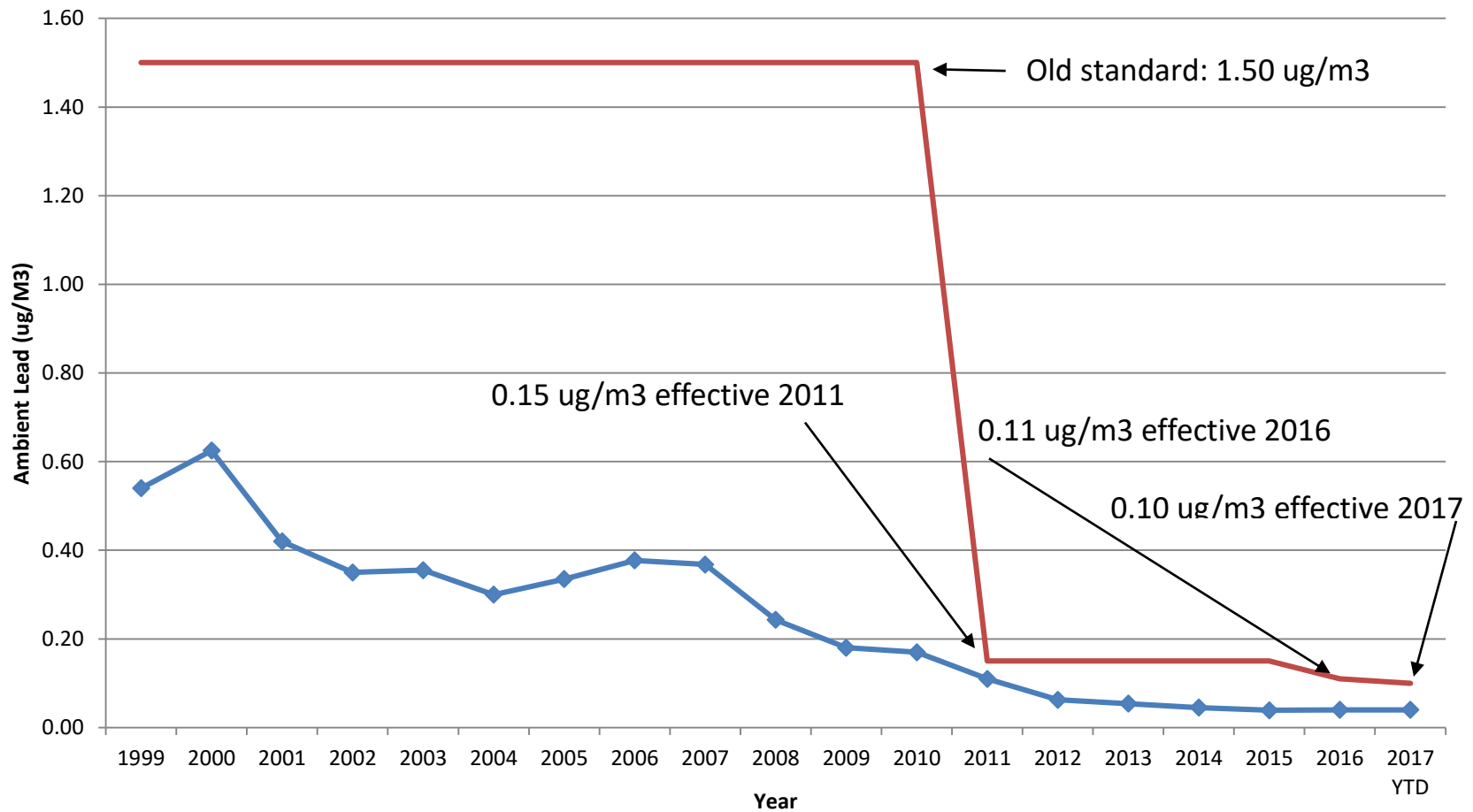




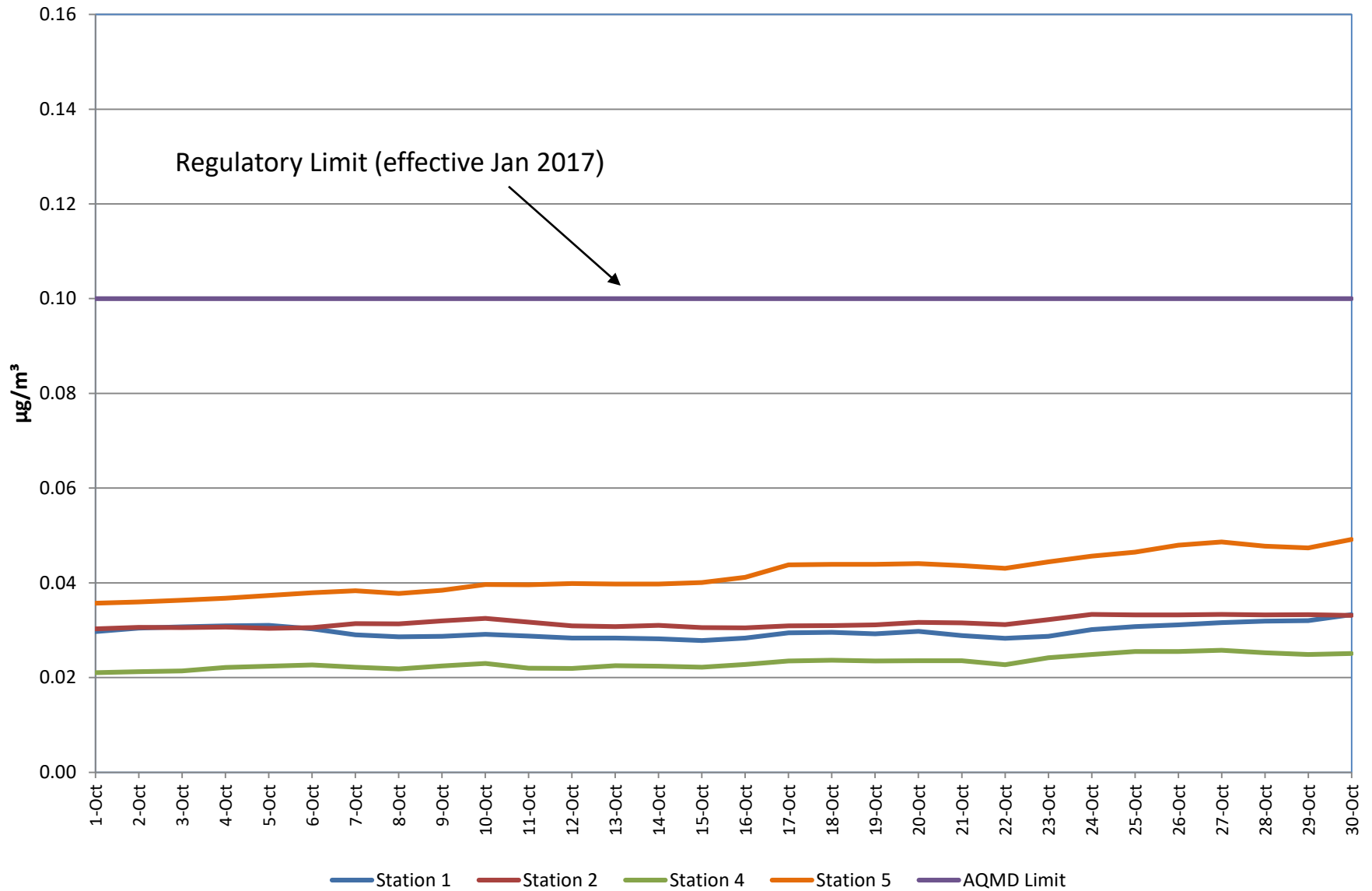
Fenceline Ambient Air Monitoring Stations

# Ambient Lead – Fenceline Historical Data

## Average All Stations

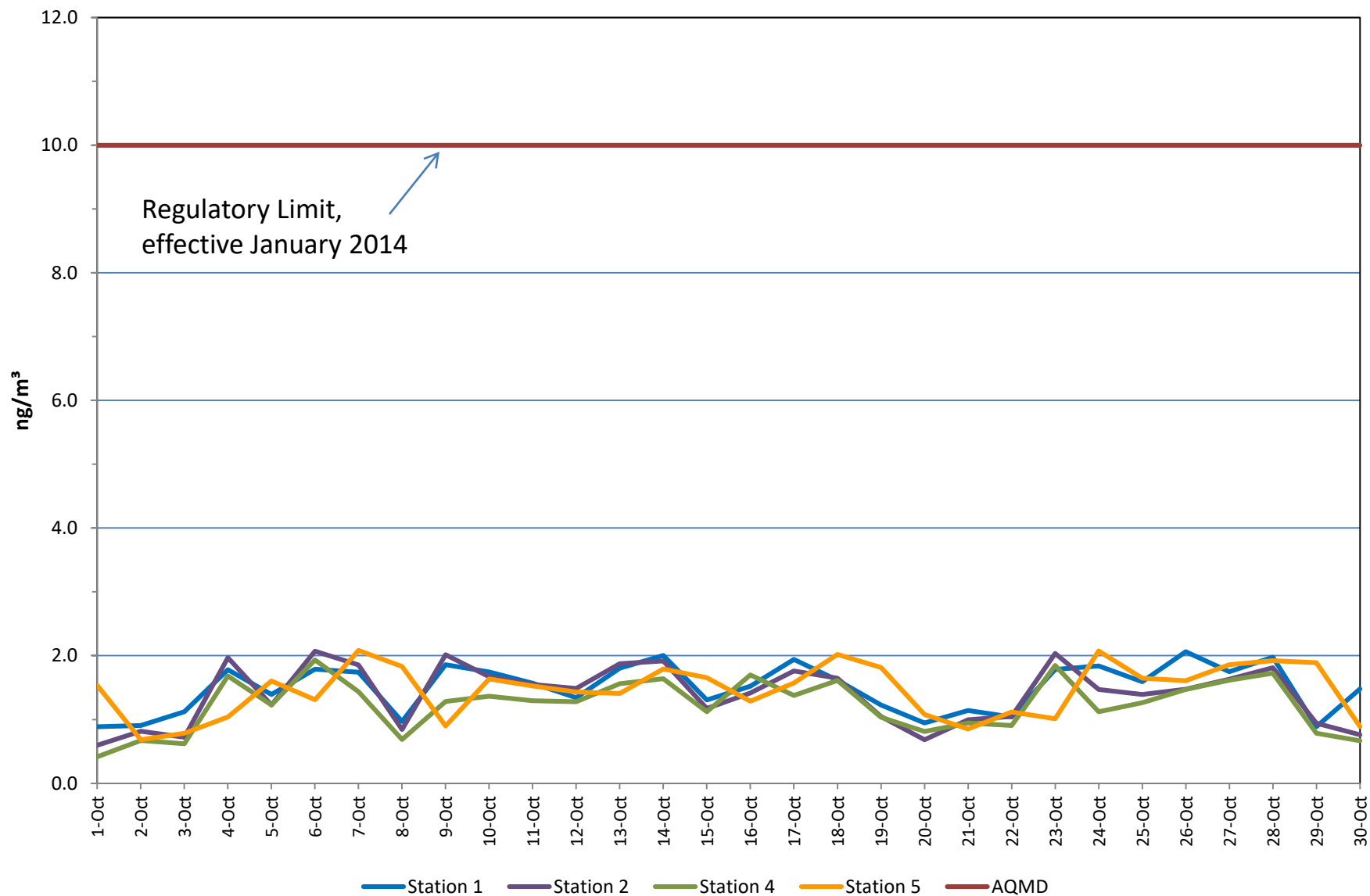


## Fenceline Monitoring - Lead 30-Day Rolling Averages





# Fenceline Monitoring - Arsenic Daily Readings



# Ambient Lead Improvement Activities

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- WESP
  - All process point sources exhausted to WESP
- Continued improvements to negative pressure enclosure and ventilation system to maintain negative pressure
- Aggressive Housekeeping
  - Plant-wide washdowns each shift.
  - Zero tolerance for poor housekeeping.

# Ambient Lead Improvement Activities

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COI Facility - Total Enclosure

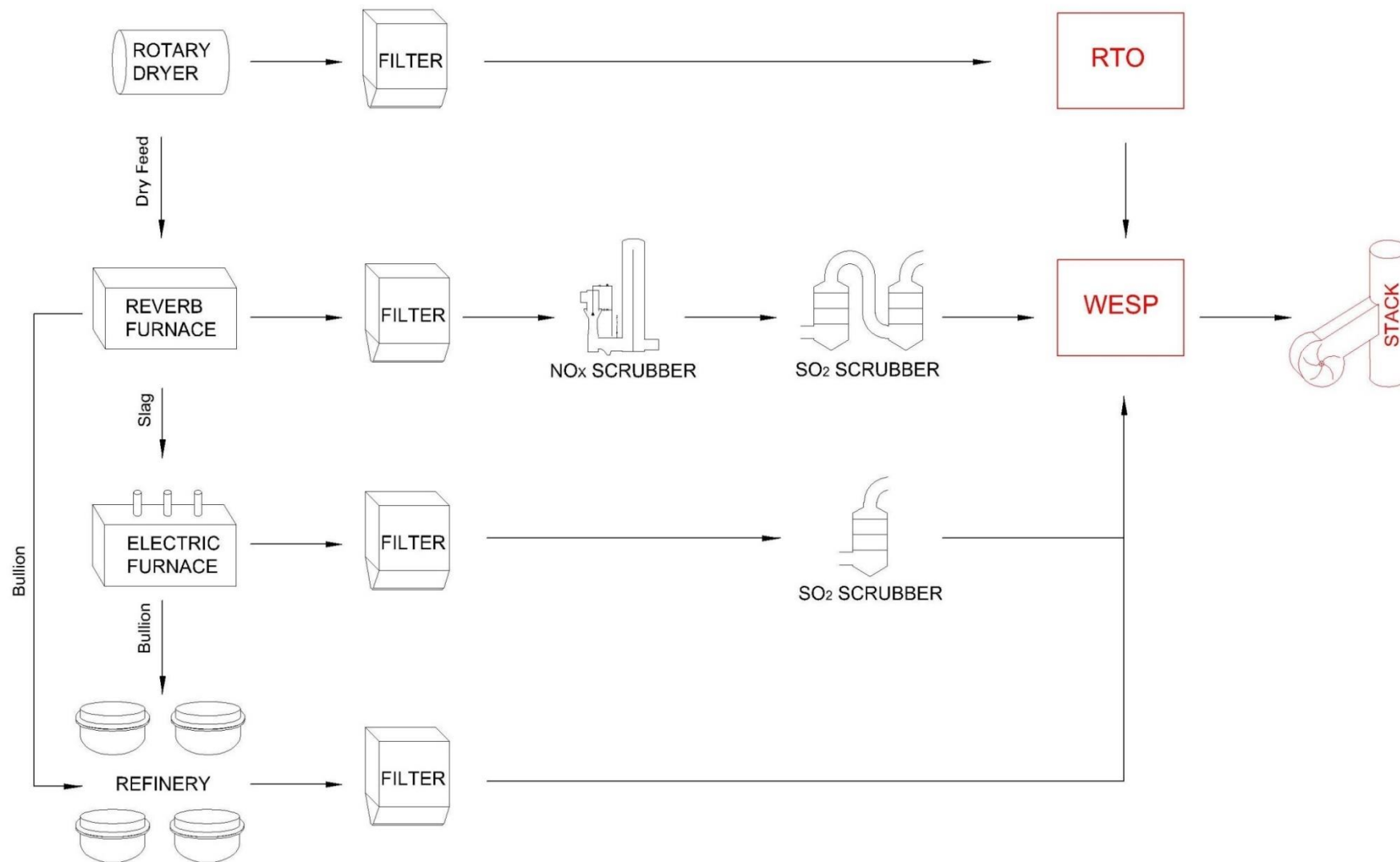
# Regulatory Oversight

## Point Source Emission Controls

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- National Emission Standards for Hazardous Air Pollutants for Secondary Lead Smelters (Subpart X)
- California Specific Limits (SCAQMD Rule 1420.1)
  - 0.003 lbs Pb/hr. (approx. 26 lbs/yr)
  - 0.00114 lbs As/hr. (approx. 10 lbs/yr)

## EMISSIONS PATH AFTER WESP AND RTO PROJECT

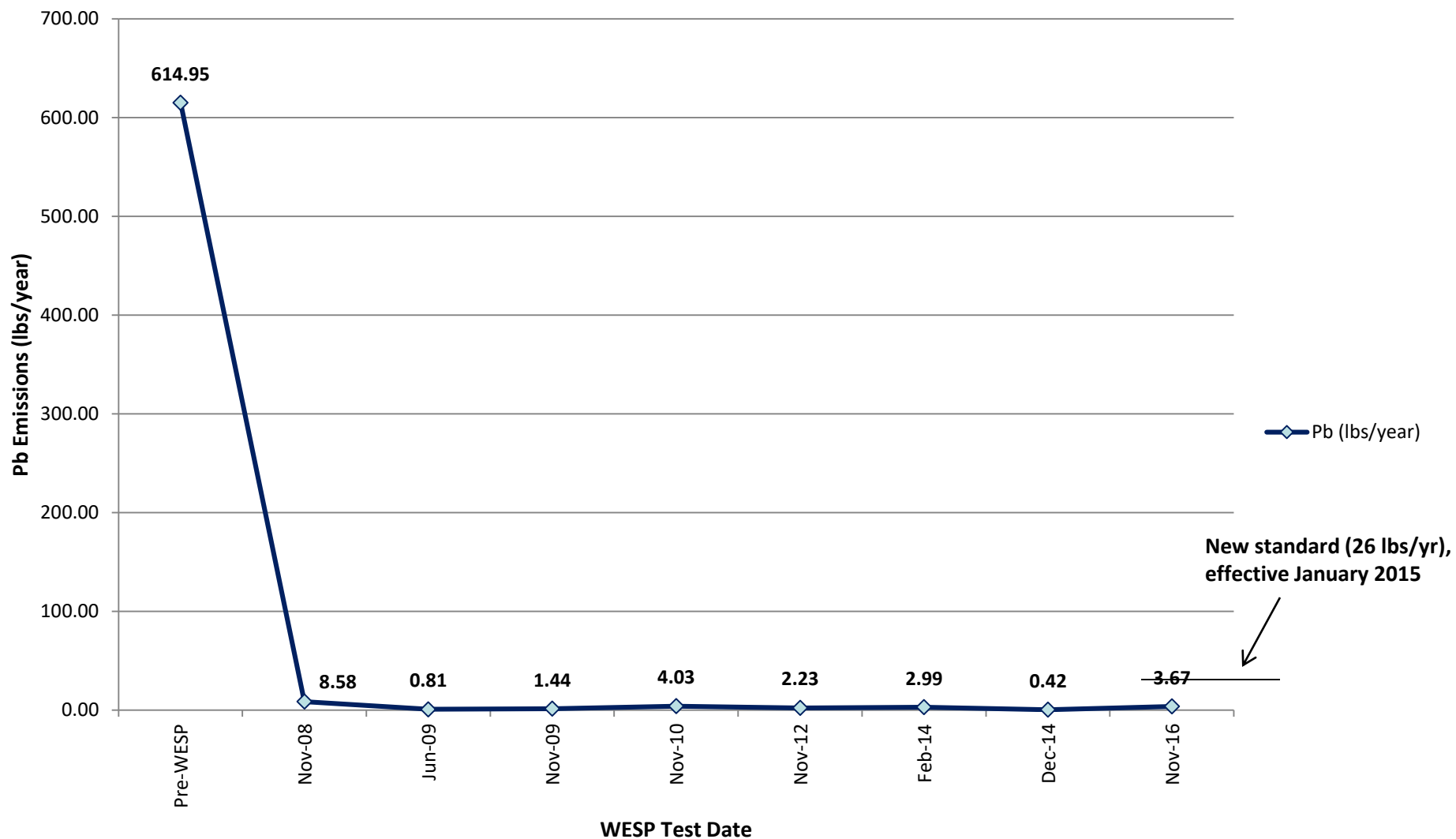




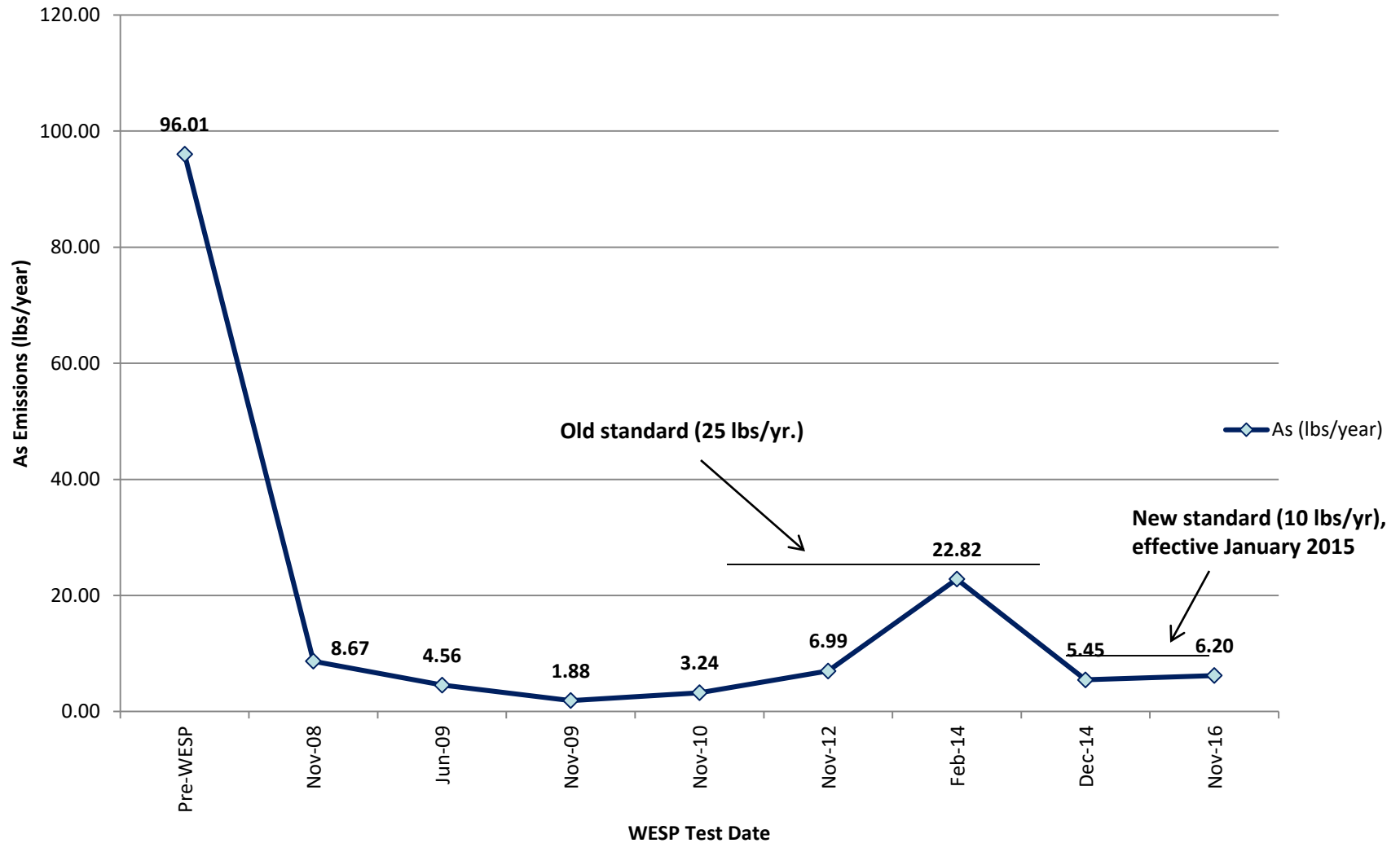
## Wet Electrostatic Precipitator (WESP)



## WESP Performance Pb (lbs/year)



## WESP Performance As (lbs/year)



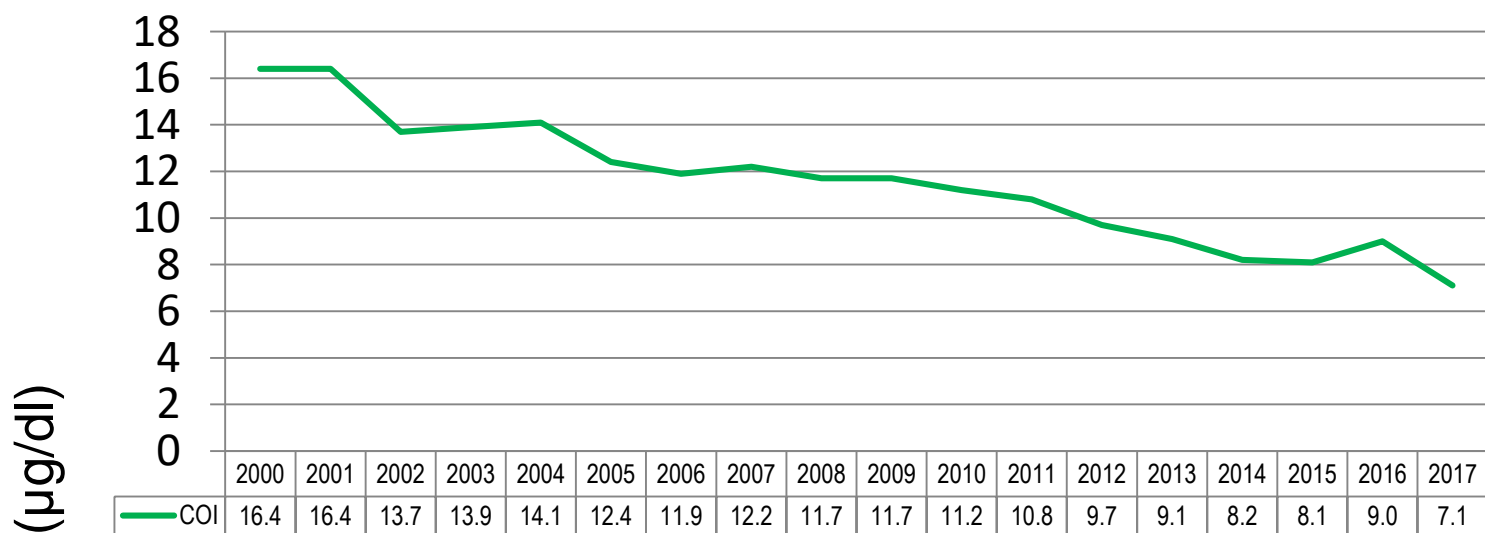
# Regulatory Oversight

## Occupational Exposure Levels

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- Federal OSHA Lead Occupational Exposure
  - Medical Removal Protection (MRP) Limit = 60 ug/dl
- ACGIH Biological Exposure Index = 30ug/dl

## Average Bloodleads Quemetco Inc. City of Industry 2000 – 2017 YTD



- Over past 10 year time period >99.9% of all employee blood lead samples are LESS than 30 ug/dl
- There has not been a blood lead greater than 30 ug/dl in past 3 years



Current Respirator Optional Areas

Respirator Required Areas

New Respirator Optional Areas

No Respirator Areas

WQ Press Room

Railroad Dock

Oxide Warehouse

Finished Goods Warehouse

Chemical Warehouse

Brick Warehouse

Employee Locker Rooms

Offices / Lunch Rooms

Refinery

Furnace

Battery Wrecker

Busch Units

RTO

WESP

Scale House

Maintenance Shop

East Gate

# Questions ?



# Generalized WESP Process Description

## Conditioning Section

- Ensures gas is saturated
- Evenly distributes gas to collection section
- Sub-cools gas in condenser/absorber
- Neutralize acid gases
- Polish SO<sub>2</sub> removal

## Outlet Section

- Supports high voltage grid
- Air purge system to clean high voltage insulators
- Wash headers to provide wet film for PM removal

## Collection Section

- Collects and removes particulate

